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TITLE: PERSISTENT EXPRESSION OF CANDIDATE MOLECULE  
IN PROLIFERATING STEM AND PROGENITOR CELLS FOR  
DELIVERY OF THERAPEUTIC PRODUCTS

Inventor: Rao et al.  
Docket No.: 2923-5456.1US

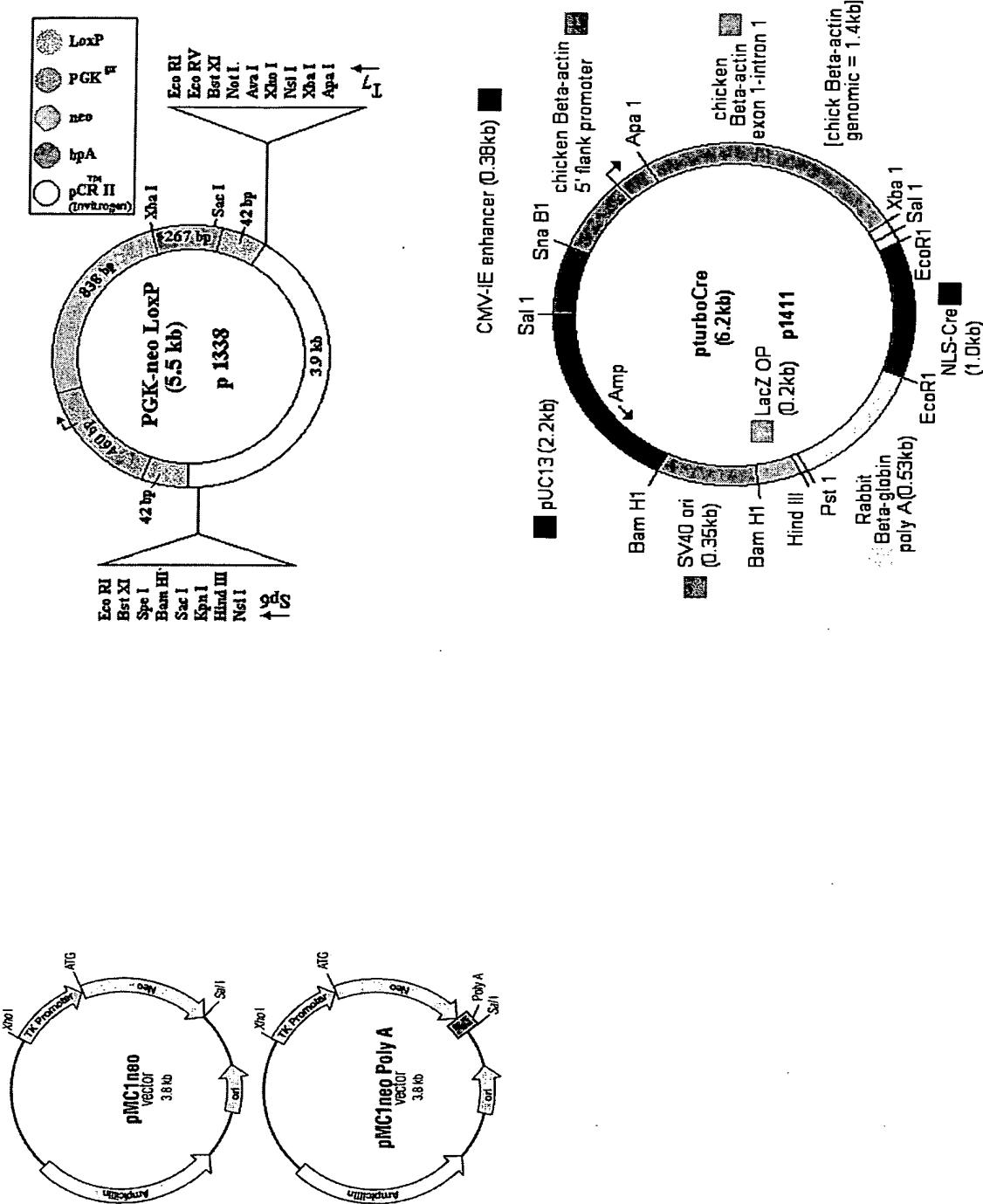


FIG. 1

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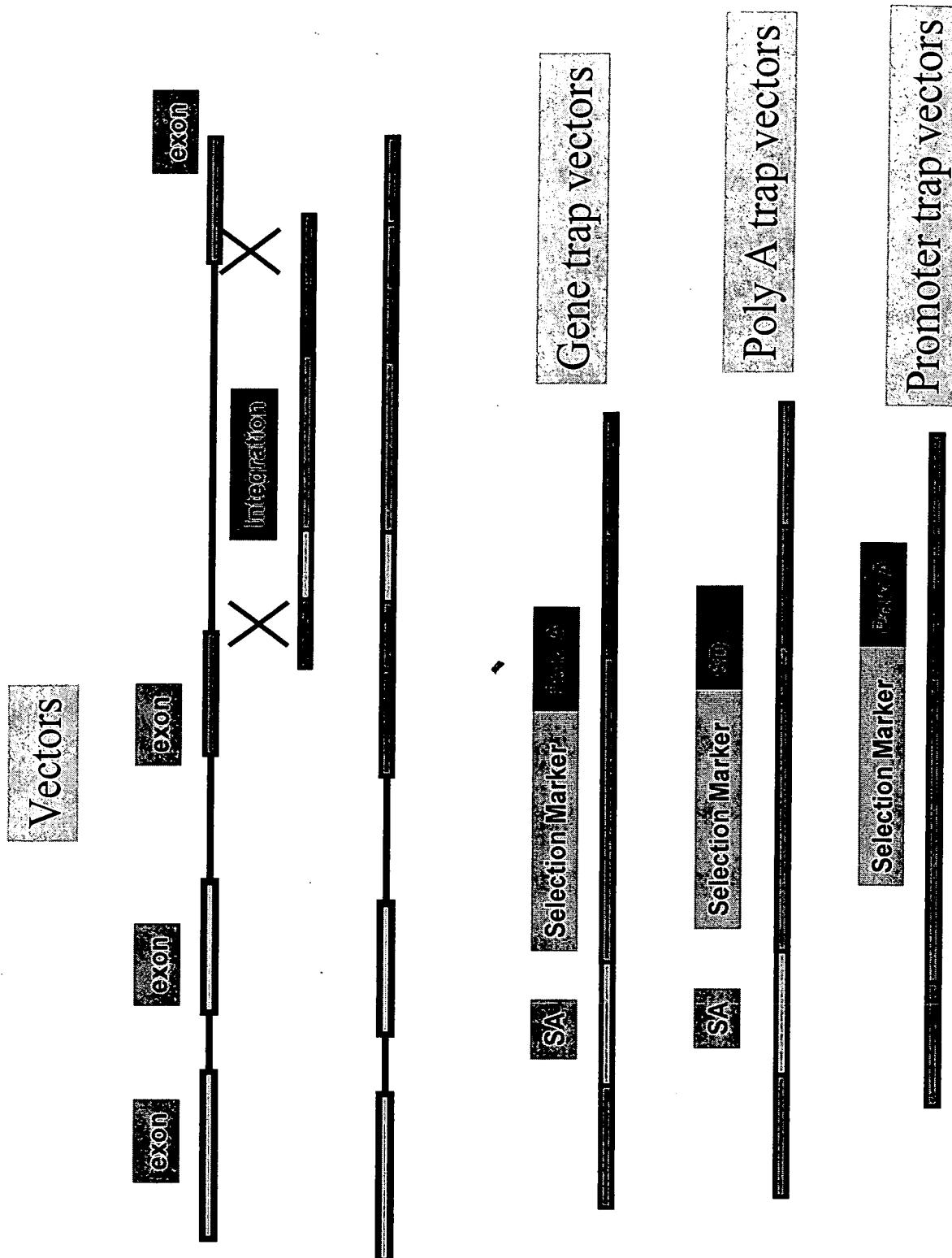


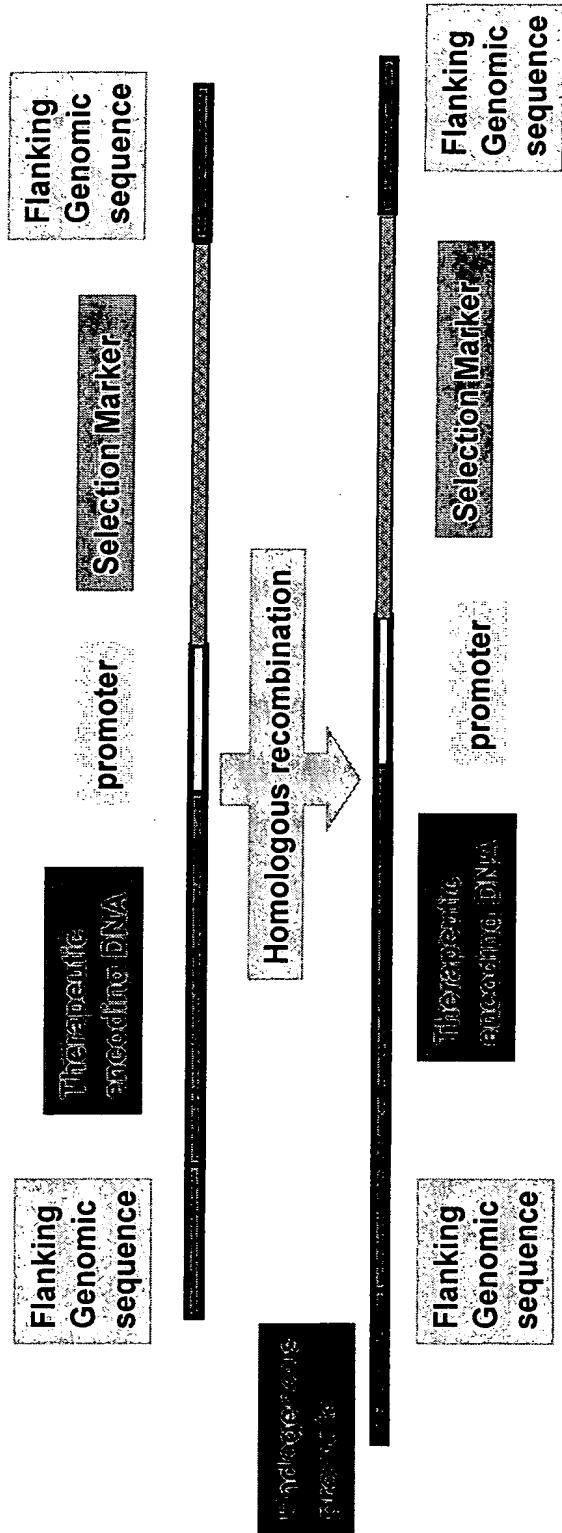
FIG. 2

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Endogenous promoter to drive gene expression

DNA construct in plasmid vector



Modified genomic DNA after homologous recombination

FIG. 3

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IRES to direct gene expression under endogenous promoter

DNA construct in plasmid vector

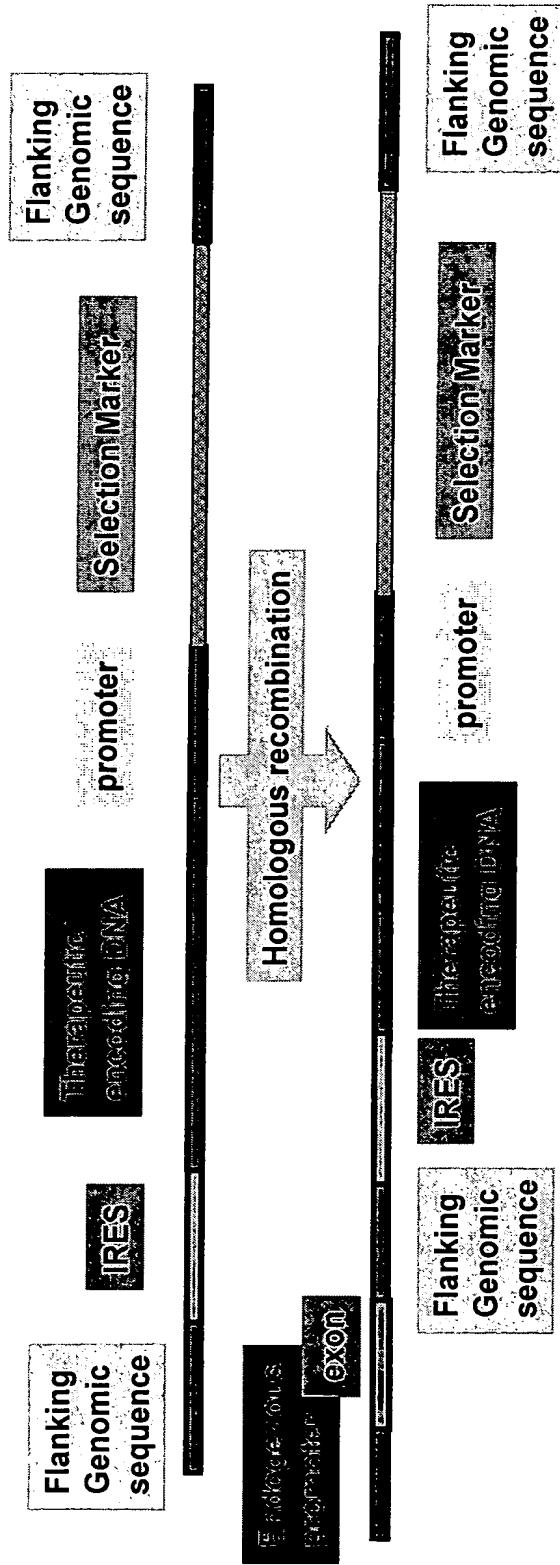


FIG. 4

Modified genomic DNA after homologous recombination

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SA and/or SD sites to direct expression of fusion transcripts

DNA construct in plasmid vector

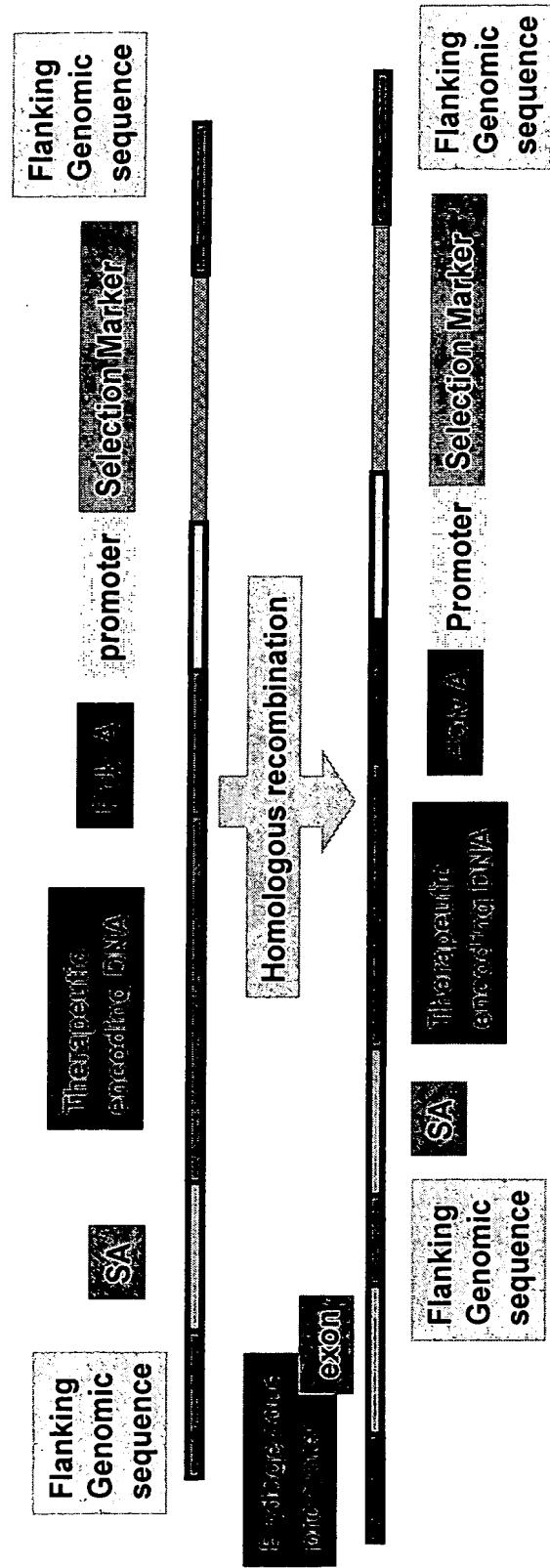


FIG. 5

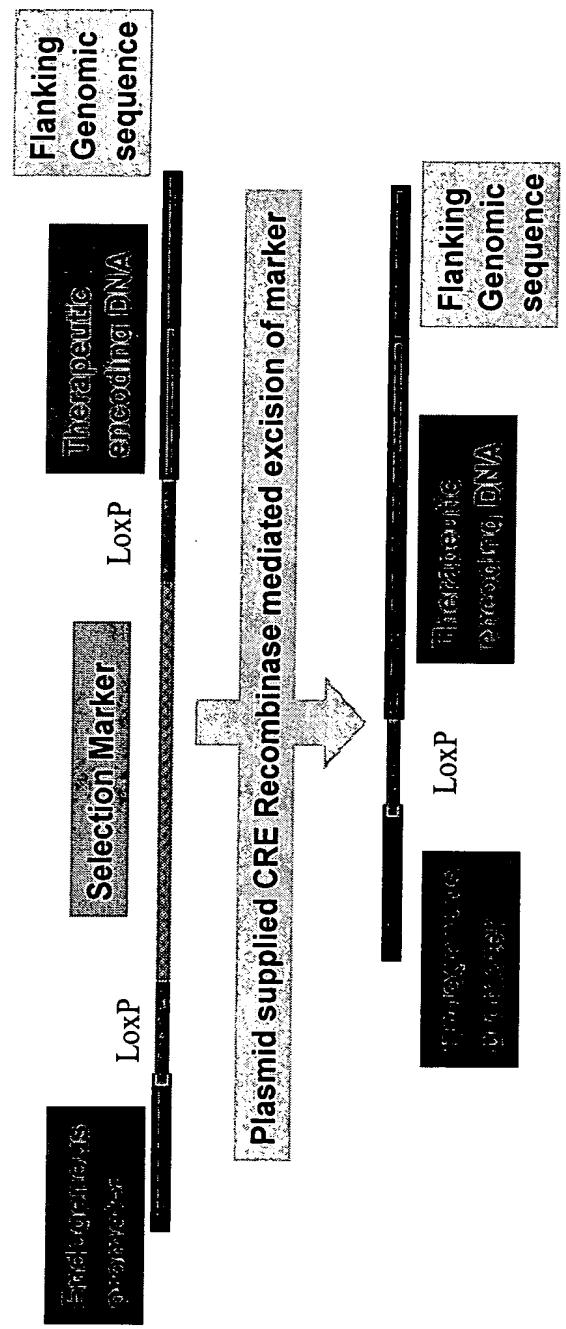
Modified genomic DNA after homologous recombination

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Endogenous promoter to drive gene expression with recombination  
remove the selection marker

Initial modified genomic DNA



Final modified genomic DNA

FIG. 6

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Endogenous promoter to drive gene expression with recombination  
remove the selection marker

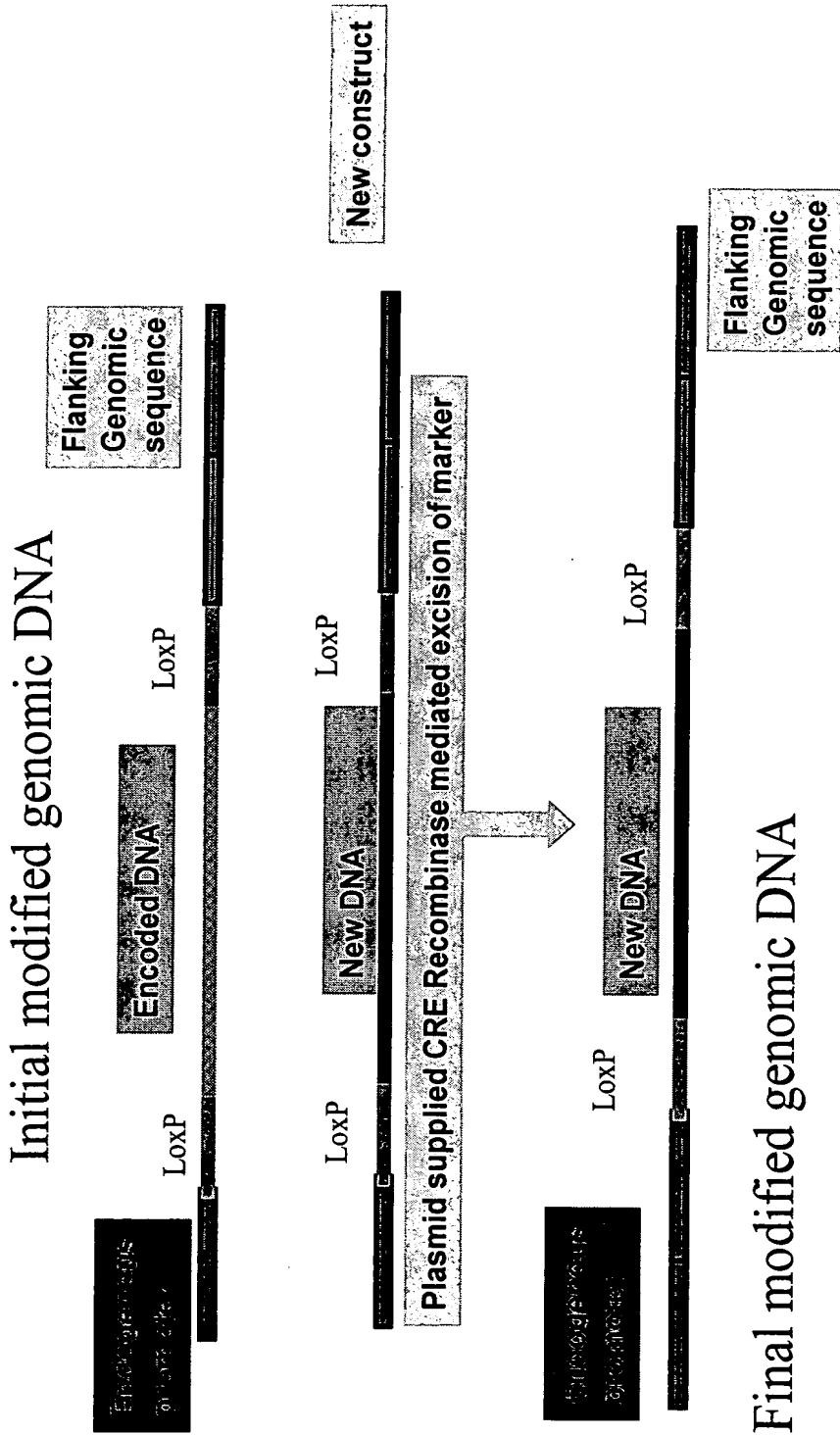


FIG. 7

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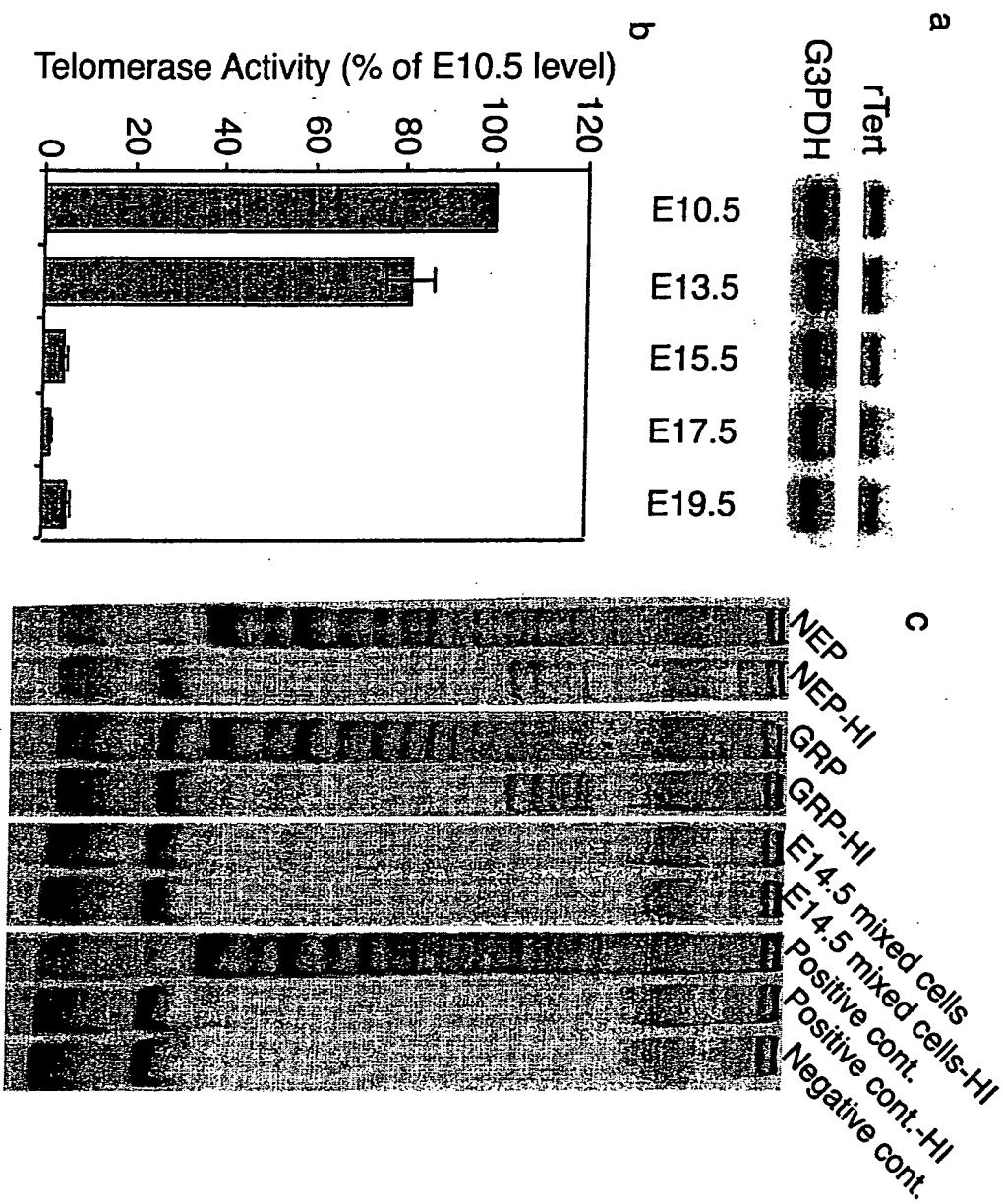


FIG. 8

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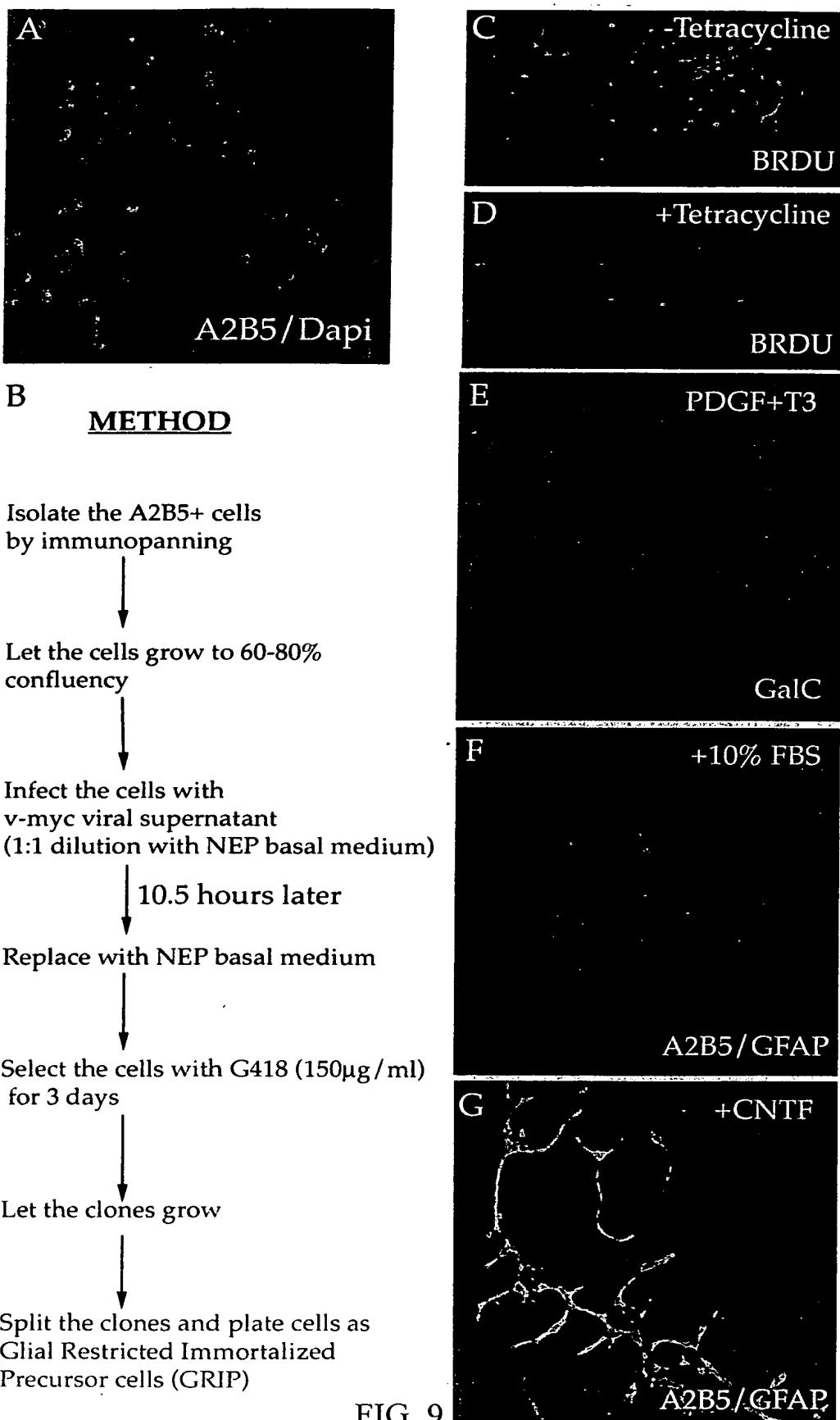


FIG. 9

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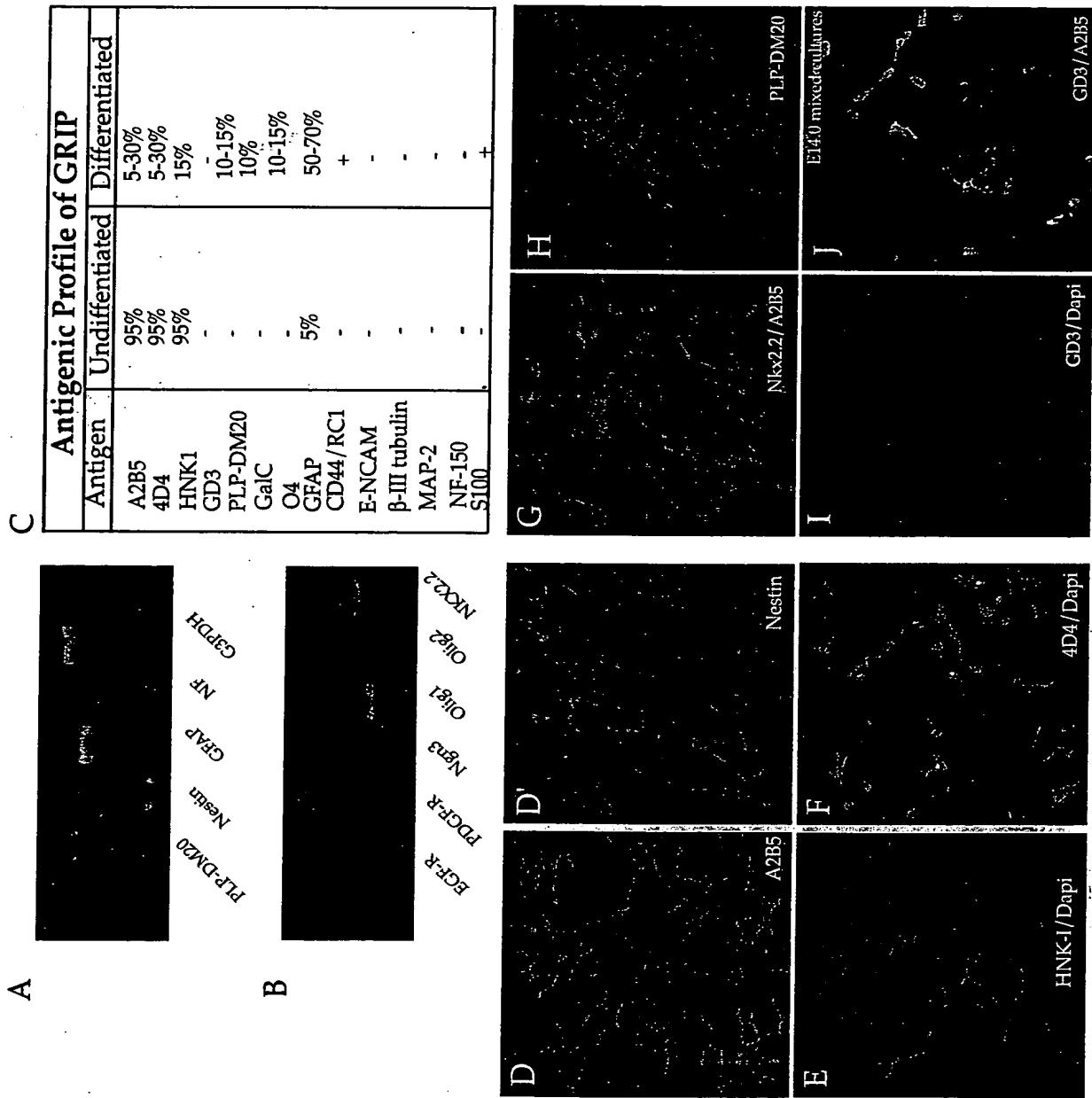


FIG. 10

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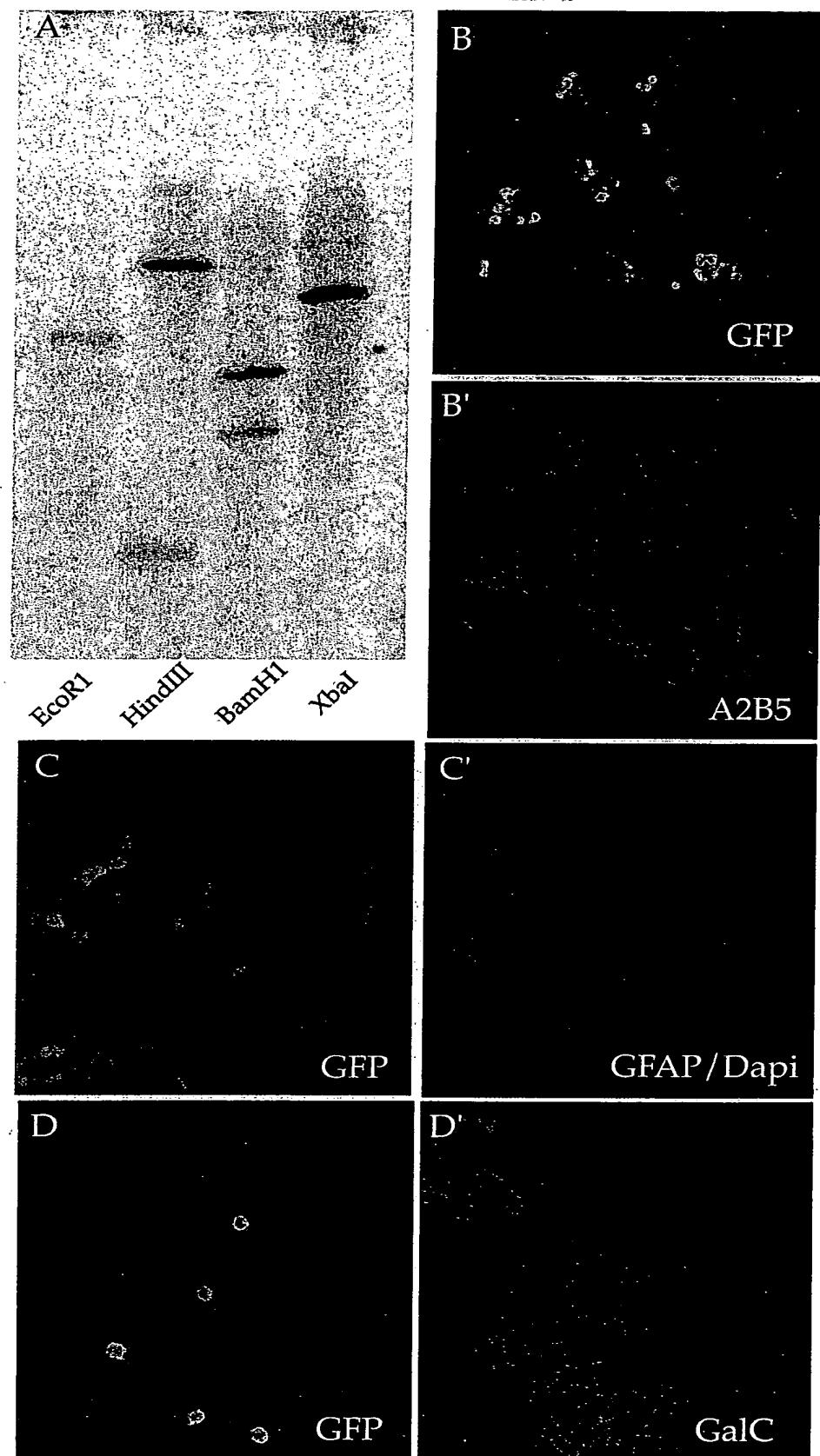
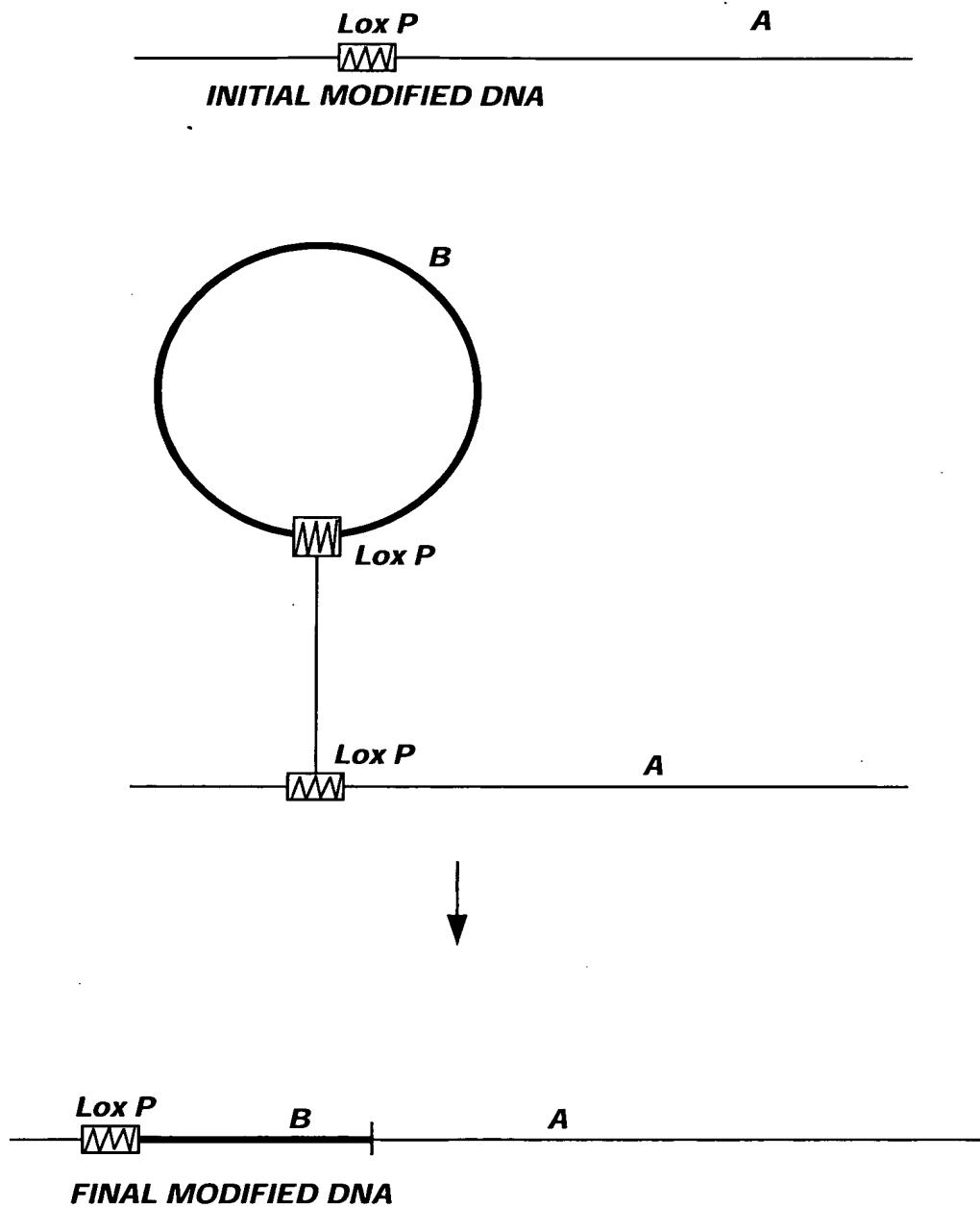


FIG. 11

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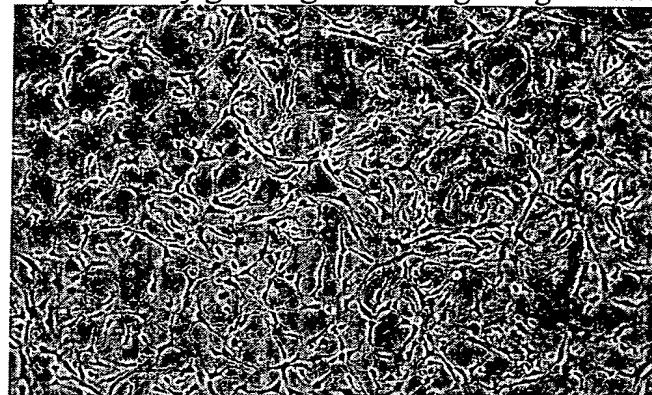


**FIG. 12**

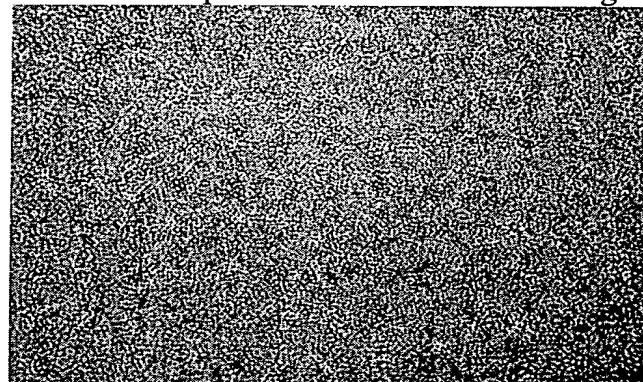
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Exponentially growing GRPs: high magnification



Control GRPs plated without G418: low mag



Control GRPs plated with G418: low mag

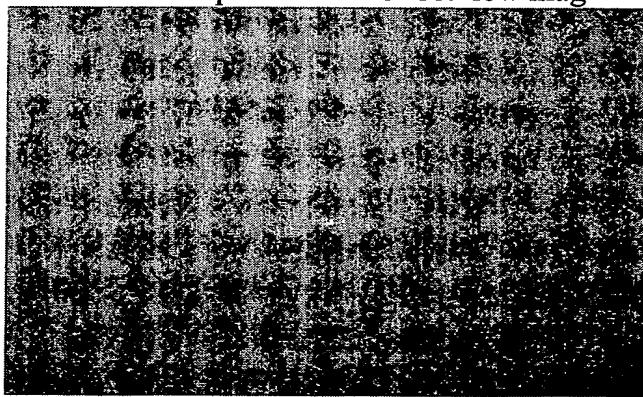


FIG. 13

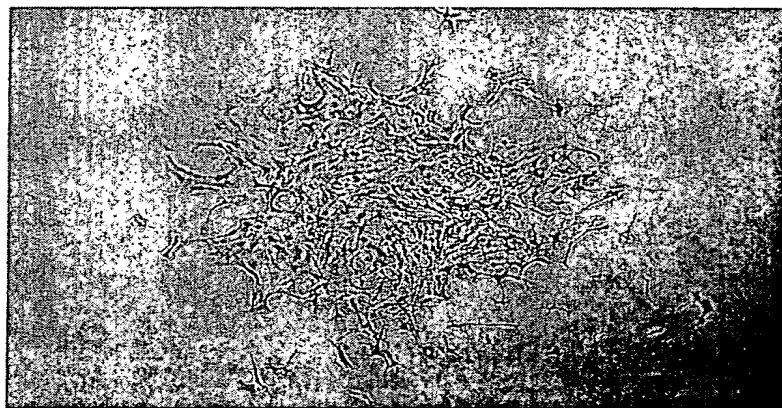
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Untransfected GRPs



Typical neo-resistant clone (Clone 1)



Typical neo-resistant clone (Clone 2)

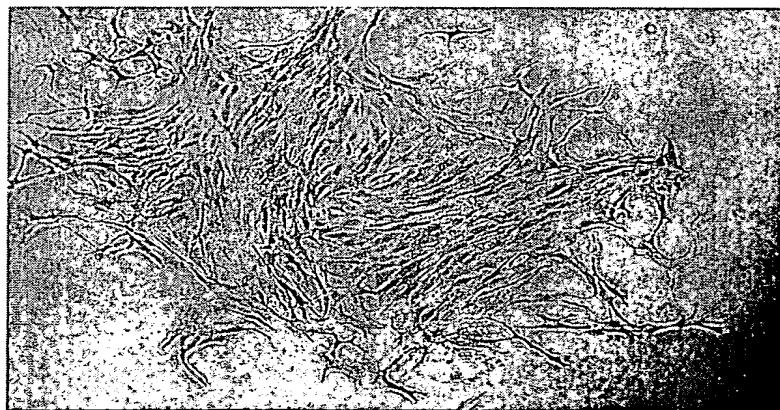


FIG. 14

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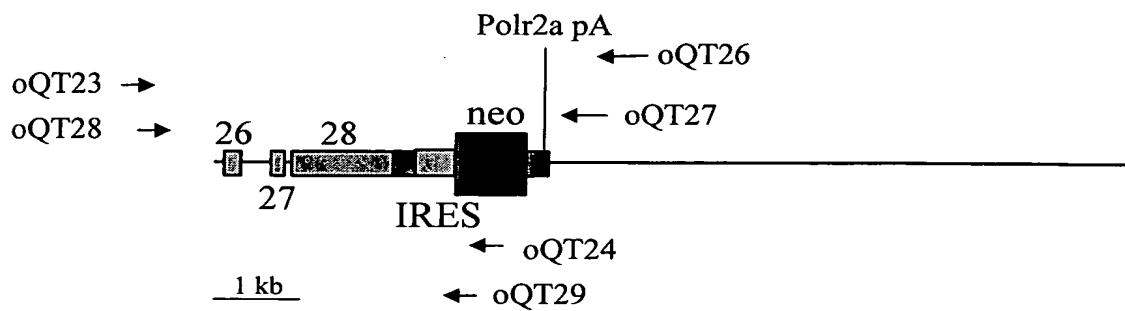


FIG. 15

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Targeted transgene integration by homologous  
recombination in mouse glial progenitor cells.

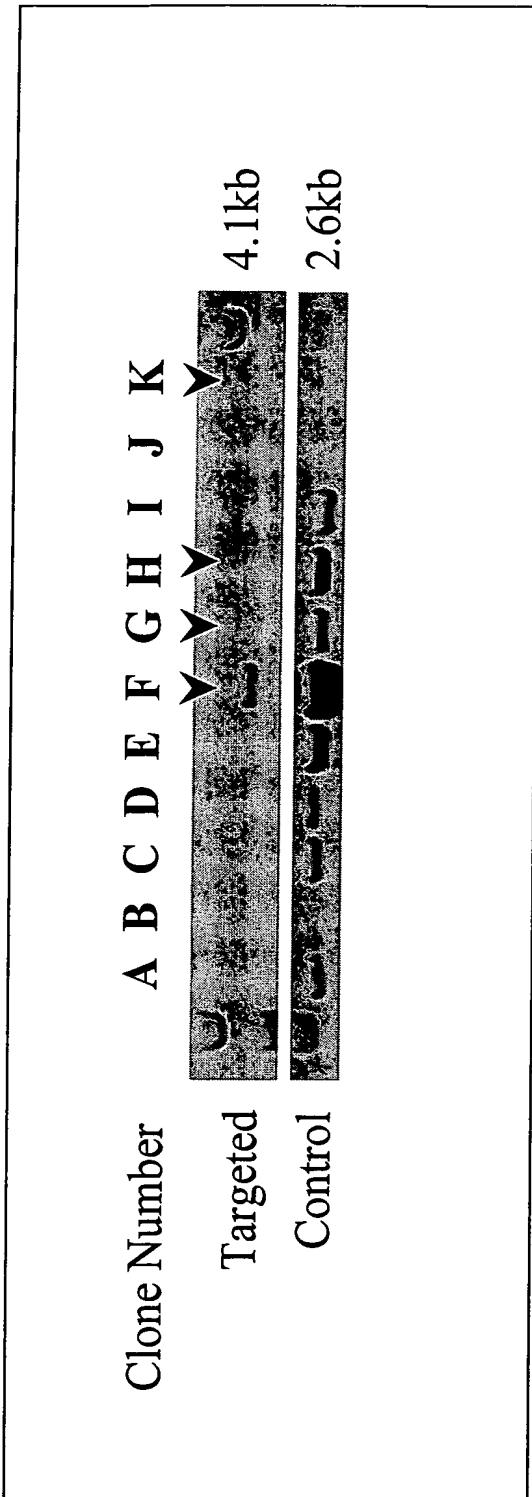
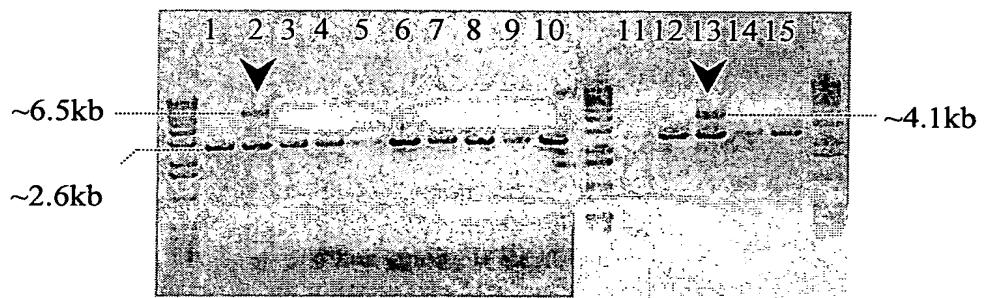


FIG. 16

A. PCR with oligos flanking presumptive IRES-neo insertion



B. PCR with one primer in IRES-neo, the other in Polr2a

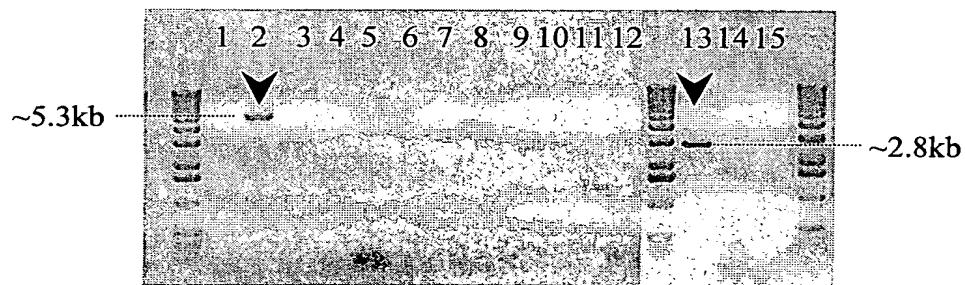


FIG. 17